



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604**

OCT 08 2019

DATE:

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
Sims Metal Management, Chicago, Illinois

FROM: Vicky Mei, Environmental Engineer
AECAB (IL/IN)

THRU: Nathan Frank, Section Chief
AECAB (IL/IN)

TO: File

BASIC INFORMATION

Facility Name: Sims Metal Management

Facility Location: 2500 S. Paulina Street, Chicago, Illinois

Date of Inspection: September 19, 2019

EPA Inspector(s):

1. Vicky Mei, Environmental Engineer
2. Kenneth Ruffatto, Environmental Engineer

Other Attendees

1. Debbie Hays, Central Region SHEC Director, Sims
2. Richard Trzupek, Principal Consultant, Trinity Consultants
3. George Malamis, Sims
4. David Dempsy, Managing Consultant, Trinity Consultants
5. Sam Flores, Plant Manager, Sims

Contact Email Address: Debbie.hays@simsmm.com

Purpose of Inspection: Emissions Pretest Observation

Facility Type: Metal Shredding and Recycling

Arrival Time: 8:40 AM

Departure Time: 10:20 AM

Inspection Type:

- ☐ Unannounced Inspection
- ☒ Announced Inspection

OPENING CONFERENCE

- ☒ Credentials Presented
- ☒ CBI warning to facility provided

The following information was obtained verbally from Sims Metal Management or Trinity Consultants staff unless otherwise noted.

Process Description:

Sims utilizes a hammermill shredder to shred sheet iron and end-of-life vehicles (ELV) and sort the shredded metals for recycling. For the purposes of the stack test required by Sims Administrative Compliance Order, dated December 17, 2018, Sims installed a temporary enclosure around the under-mill oscillator (UMO) with overlapping rubber sheeting around the UMO, metal sheeting above the mill, and vacuum pulling emissions through the enclosure to ducting with emission testing probes for sample collection and monitoring of particulate matter, volatile organic compounds, and metals from the mill.

Previously a ½ - inch filter was installed in the ducting before the sampling point, but this filter was removed to allow for a stronger pull with the fan without being limited by blockage at the filter. Any captured particles and objects in the air were discharged through the ducting to a pod with openings that were covered by expanded metal, a mesh filter, and water from a misting hose on the outside of the exhaust point.

Staff Interview:

The pre-stack test run started at about 9:05 AM and alternated between feeding ELV and sheet iron into the mill. The fan was initially set at 40 hertz and was later increased to 50 hertz at about 9:56 AM. The fan had the ability to go up to 60 hertz. During the stack test, fan amperage will be monitored every 5 minutes and the feed will be processed at a rate of 200 tons per hour or 300 tons over each 90-minute run.

TOUR INFORMATION

EPA toured the facility: Yes


Data Collected and Observations:

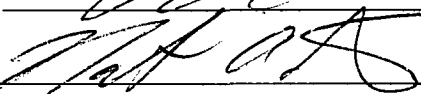
The relative amount of visible emissions and emissions seen via the FLIR camera decreased when the fan speed was increased.

Photos and/or Videos: were taken during the inspection.

Field Measurements: were not taken during this inspection.

SIGNATURES

Report Author:  Date: 10/4/2019

Section Chief:  Date: 10/8/19

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APPENDICES AND ATTACHMENTS

1. Appendix A: Digital Image Log

Facility Name: Sims Metal Management
Facility Location: 2500 S. Paulina Street, Chicago, Illinois
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APPENDIX A: DIGITAL IMAGE LOG

1. Inspector Name: Vicky Mei and Kenneth Ruffatto	2. Date(s) of Inspection: September 19, 2019
3. Company/Facility Name: Sims Metal Management	4. Street Address, City, State: 2500 S. Paulina Street, Chicago, Illinois
5. Number of Images: 27	6. Archival Record Location: Three CD-Rs, labelled "Sims Metal Management Pretest 09/19/2019", and one USB, labelled "SIMS 09/19/2019 Video #12 Pretest"

Digital Photos

Image Number	File Name	Date and Time (CST)	Description of Image
1	P9190001.JPG	2019:09:19 09:19:23	Temporary enclosure and duct work (northeast view).
2	P9190002.JPG	2019:09:19 09:19:29	Duct work with the old filter point, leading into a trailer for sampling and testing.
3	P9190003.JPG	2019:09:19 09:27:59	Inside the empty sampling and testing trailer.
4	P9190004.JPG	2019:09:19 09:29:00	Pod discharge point and misting hose.
5	P9190005.JPG	2019:09:19 09:30:18	Pod discharge point (east view).
6	P9190006.JPG	2019:09:19 09:35:51	Conveyor inlet to the mill; visual emissions were seen (east view).
7	P9190008.JPG	2019:09:19 09:43:07	Conveyor inlet to the mill; visual emissions were seen (east view).
8	P9190009.JPG	2019:09:19 09:45:57	Metal chute leading to separators (east view).
9	P9190010.JPG	2019:09:19 09:46:30	Metal separators.
10	P9190011.JPG	2019:09:19 09:47:46	Sorted metal.
11	P9190014.JPG	2019:09:19 10:10:21	Pod discharge point (east view).

Digital Videos

Image Number	File Name	Date and Time (CST)	Description of Image
1	P9190007.MOV	9/19/2019 9:37	Conveyor inlet to mill; visual emissions were seen (east view); fan was at 40 hertz.
2	P9190012.MOV	9/19/2019 9:56	Top of temperature enclosure (northwest view); visual emissions were seen; fan was at 40 hertz.
3	P9190013.MOV	9/19/2019 10:04	Top of temperature enclosure (northwest view); visual emissions were seen; fan was at 50 hertz.

FLIR Videos

Image Number	File Name	Description of Image
1	MOV_2545.mp4	Visual emissions above the duct work (northeast view).
2	MOV_2546.mp4	Visual emissions above the duct work (northeast view).

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3	MOV_2547.mp4	East view of the mill.
4	MOV_2548.mp4	East view of the mill.
5	MOV_2549.mp4	Conveyor to the mill (east view).
6	MOV_2550.mp4	Visual emissions from the mill (east view from conveyor to the mill).
7	MOV_2551.mp4	Visual emissions from the mill (east view from conveyor to the mill).
8	MOV_2552.mp4	Visual emissions from the mill (northwest view).
9	MOV_2553.mp4	Visual emissions from the mill (northwest view).
10	MOV_2554.mp4	Visual emissions from the mill (northwest view).
11	MOV_2555.mp4	Visual emissions from the mill (northwest view).
12	MOV_2556.mp4	Pod discharge point (east view).
13	MOV_2557.mp4	Above the duct work and mill (northeast view).